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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/973,574	10/09/2001	Michael Waring	A33882-007220.0135	6030

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EXAMINER	
WILKINS III, HARRY D	

ART UNIT	PAPER NUMBER
1742	

DATE MAILED: 01/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/973,574	WARING ET AL.	
	Examiner	Art Unit	
	Harry D Wilkins, III	1742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 December 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4,8-13 and 15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4,8-13 and 15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *05 February 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. The rejection of claim 8 based on Bradley et al in view of Hartman et al and Stadler et al has been withdrawn in view of Applicant's amendment. However, new grounds of rejection are presented below in view of the newly found reference, Ford.

Claim Rejections - 35 USC § 103

2. Claims 1, 2, 4 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bradley et al (US 4,310,390) in view of Hartman et al (US 3,053,691) and Stadler et al (US 5,750,014).

Bradley et al teach (see col. 1, lines 9-28, col. 3, lines 50-63 and the paragraph spanning cols. 4 and 5) a method of anodizing aluminum including alkaline cleaning, deoxidizing (inherently with a deoxidizer), anodizing with sulfuric acid and sealing with a solution including sodium dichromate.

Bradley et al do not teach that the sealing solution including sodium dichromate has a pH of 1.0 to 3.0.

However, Bradley et al teach (see col. 1, lines 9-28) that the invention is an improvement over the prior art process which used a separate sealing and coating step. Thus, Bradley et al performs two steps simultaneously, sealing and coating, that the prior art had performed separately, for the purpose of reducing labor involved with moving the aluminum object from one reaction tank to another.

Hartman et al teach (see col. 1, lines 15-54) the prior art process of treating with a chemical conversion coating (sealing) by treatment with sodium dichromate (col 2,

lines 58-62) which has a pH of 1-3 (col. 3, lines 7-16) that is controlled by additions of nitric acid.

However, Bradley et al and Hartman et al do not teach supplying each solution from a separate storage tank and removing each solution form the process tank and putting it in a transition tank.

Stadler et al teach (see Fig.1, numerals 32, 34, 36 and 38, "To waste treatment" and abstract) an aluminum anodizing process where each solution is supplied from a storage tank and removing each solution from the process tank and putting it in a transition tank. Stadler et al teach (see cols. 4 and 5) that the single process chamber minimized movement of the articles to be treated (inherently decreasing labor considerations.

Therefore, it would have been obvious to one of ordinary skill in the art to have used the single process chamber with multiple feed tanks as described by Stadler et al for the process of Bradley et al because the single process chamber reduces the amount of labor involved in the anodizing process.

Ensuing from this, one of ordinary skill in the art would have been motivated to take the combined steps of Bradley et al and returned to the prior art separate steps as disclosed by Hartman et al because of the labor savings provided by using the process of Stadler et al. Thus, one of ordinary skill in the art would have used the sodium dichromate solution having a pH of 1.0-3.0 of Hartman et al, wherein the pH is controlled by adding nitric acid because it provides excellent corrosion resistance and paintablity.

The coating solution taught by Hartman et al would be distinct from the alkaline and deoxidizing solutions.

Regarding claim 15, Bradley et al teach (as above) applying an anodizing solution, which would make the sealing solution of Hartman et al the fourth solution.

3. Claims 8-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bradley et al (US 4,310,390) in view of Hartman et al (US 3,053,691) and Stadler et al (US 5,750,014) as applied above to claims 1, 2, 4 and 15 and further in view of Ford (US 2,636,257).

As above, Bradley et al in view of Hartman et al and Stadler et al teach the invention substantially as claimed.

Bradley et al in view of Hartman et al teach applying: (1) degreasing (i.e.-chemical polish) (Bradley); (2) alkaline cleaning (Bradley); (3) deoxidization (Bradley); (4) anodizing in sulfuric acid (Bradley); and, (5) a dichromate sealing (Hartman).

Thus, Bradley et al fail to teach separate sealing and coating steps.

However, Ford teaches (see figure and col. 2, lines 9-20) applying additional coating layers onto a sealed (primed) metal substrate, particularly organic (resin) coatings for improving the appearance and corrosion resistance of the metal substrate. It should be noted that the primer of Ford includes chromate ions in addition to resin, thus making it equivalent to the sealing coating of Hartman et al.

Therefore, it would have been obvious to one of ordinary skill in the art to have applied a further coating step as taught by Ford, such as a aqueous solution of a resin

for coating, after the sealing step of Hartman et al for the purpose of further increasing corrosion resistance and improving the appearance of the aluminum part.

Thus, the sealing and coating solutions are distinct from each other.

Regarding claims 11 and 12, the coating step of Hartman et al uses a polyacrylamide acid solution that has a preferable pH of 1.0-3.0 with nitric acid used to control the pH (see col. 1, lines 15-54 and col. 3, lines 7-16).

Response to Arguments

4. Applicant's arguments filed 6 December 2004 have been fully considered but they are not persuasive. Applicant has argued that:

a. Bradley and Hartman are directed to simultaneous sealing and coating steps whereas the present invention includes independent application of the sealing and coating steps.

In response, while this does affect the rejection grounds of claim 8, it does not affect claims 1 and 15. Thus, the rejection grounds are maintained. As for claim 8, as disclosed by Ford, it would have been obvious to one of ordinary skill in the art to have applied a further coating the aluminum part of Bradley after sealing to provide additional corrosion resistance or improved appearance. Thus, the coating solution and the sealing solution would be distinct.

b. Bradley does not teach a single processing tank.

In response, while it is true that Bradley et al teach a process where multiple tanks were used, this was remedied by the teachings of Stadler.

c. Hartman and Stadler are primarily directed to electroplating.

In response, the teachings of Hartman and Stadler would still be considered analogous because the same electrochemical principles apply to anodizing as to electroplating.

d. Stadler does not suggest use of separate storage tanks which feed solution into a single process tank.

In response, this is incorrect. Please see figure 1 of Hartman which includes a single process tank and several separate storage tanks for each individual solution to be applied.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Harry D Wilkins, III whose telephone number is 571-272-1251. The examiner can normally be reached on M-Th 10am-8:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy V King can be reached on 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Harry D Wilkins, III
Examiner
Art Unit 1742

hdw

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